

Neutrino Subgroup Nu1 “Neutrino Oscillations and the 3-Flavor Paradigm”

Draft topics and agenda items for the SLAC workshop

Wednesday 1 – Introduction and Precision Measurements 90min

1. Open questions and future directions in neutrino physics (theory)– 30min
(This includes unitarity constraints, how well do we need to know the mixing parameters, fundamental questions about symmetry and beyond the SM.)
2. Status quo and future evolution of θ_{13} (*exp*) - 15min
3. Status quo and future evolution of θ_{23} and δ_{31} (*exp*) - 15min
4. Status quo and future evolution of θ_{12} and δ_{21} (*exp*) - 15min
5. Required Inputs for future precision oscillation measurements (*exp/pheno*) - 15min

Wednesday 2 – Mass Hierarchy 90min

1. From existing experiments and their upgrades –15min
2. From atmospheric neutrinos in the future - 15min,
3. From man-made neutrinos in the future - 15min

Discussion period – 45min

Thursday 1 – CP Violation 90min

1. CP violation measurements from future superbeam experiments - 15min
2. CP violation from advanced beams, Neutrino Factories, - 15min
3. Novel ideas Daedalus, CHIPS etc -15min

Discussion period – 45min

Thursday joint with Nu4 (Interactions) 45min

1. Cross sections and their impact on CP measurements - 15min
2. The need for near detectors - 15min

Thursday joint with Nu6 (Cosmo) and underground capabilities 45min

1. Mass hierarchy from astrophysics (SN+masses)- 15min
2. Backgrounds at the surface - 15min

Thursday joint with Nu5 (Anomalies), Nu4 and accelerator capabilities 90min

Short baselines

1. NuStorm, *15min*
2. Short-baseline experiments with reactors and radioactive sources *15min*,

Accelerators incl. Project X

1. What we need, *15min*
2. Evolution of facilities (aka staging), *15min*

PREPARATIONS FOR THE SLAC MEETING - Action Items

1. conveners pose questions about white papers to authors
2. conveners invite representatives of white papers to be present during the discussion
3. conveners will prepare summary slides with questions to get discussions started with input from summary speakers